UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,548	04/12/2004	Marc Seghatol	1550.36US03	1792

7590 04/03/2009

Brad Pedersen
Patterson, Thuente, Skaar & Christensen, P.A.
4800 IDS Center
80 South 8th Street
Minneapolis, MN 55402-2100

EXAMINER	
BUTLER, PATRICK NEAL	

ART UNIT	PAPER NUMBER
1791	

MAIL DATE	DELIVERY MODE
04/03/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/822,548
Filing Date: April 12, 2004
Appellant(s): SEGHATOL ET AL.

Thomas F. Woods
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 02 February 2009 appealing from the Office action mailed 31 October 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

Withdrawn Rejections

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner:

- Whether Claims 1, 33, and 37 are unpatentable on the ground of nonstatutory obviousness-type double patenting over Claim 5 of U.S. Patent No. 6,737,619 B2 in view of Gonser (US Patent No. 3,868,513).

Grounds of Rejection Not Withdrawn but not Presented for Review

The following grounds of rejection have not been withdrawn by the examiner, but they are not challenged on appeal because they have not been argued in the appellant's brief:

- Whether Claims 1, 33, and 37 are unpatentable on the ground of nonstatutory obviousness-type double patenting over Claim 10 of U.S. Patent No. 6,254,389 B1.
- Whether Claims 1, 33, and 37 are unpatentable under 35 U.S.C. 102(e) as being clearly anticipated by Stangel et al. (US Patent No. 6,605,651 B1). The indication of the patent number in the Office action mailed 31 October 2007 was clearly a typographical error and was understood on page 14 of Appellant's Brief.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,147,903	**Podszun et al.**	**9-1992**
4,873,269	**Nakazato, Ryoji**	**10-1989**
5,421,727	**Stevens et al.**	**06-1995**
6,254,389 B1	**Seghatol**	**7-2001**
6,605,651 B1	**Stangel et al.**	**8-2003**

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 33, and 37 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 10 of U.S. Patent No. 6,254,389 B1.

With respect to Claims 1, 33, and 37, Claim 10 of U.S. Patent No. 6,254,389 B1 teaches forming polymerized resin on a tooth (part of a tooth; a hardened object; orthodontic element) from a resin matrix (curable polymer composition) and using a hand-held microwave energy source intra-orally to polymerize the resin matrix (using a microwave source to apply microwave energy to harden said hardenable object).

Claims 1, 33, and 37 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Stangel et al (US Patent No. 6,605,051 B1).

Stangel teaches Claim 1 (See Stangel, Claim 1: preamble, (i), (i)(a), and (ii); col. 4, lines 36-40)).

Stangel teaches Claims 33 (See Stangel, Claim 3: preamble, (i), and (ii)).

Stangel teaches Claims 37 (See Stangel, Claim 4: preamble, (i), and (ii); and Claims 12 and 13).

Claims 1, 33, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Podszun (US Patent No. 5,147,903) in view of Nakazato (US Patent No. 4,873,269) and Stevens (US Patent No. 5,421,727).

With respect to Claims 1, 33, and 37, Podszun teaches using polymeric methacrylate to make or fill teeth (see col. 1, lines 8-20).

Podszun does not appear to expressly teach curing by hand-held microwave.

Nakazato teaches using microwave to cure methacrylate material (see Abstract; col. 2, lines 39-45).

Stevens teaches a method of safely applying microwave energy in-mouth with a hand-held tool (see Abstract; fig. 2; col. 1, lines 13-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Nakazato's microwave energy using Stevens's in-mouth energy applicator in the method as taught by Podszun because using Stevens safe apparatus in-mouth allows for polymerization within a short time without causing porosity, limited deformation, and improved size accuracy (see Nakazato, col. 2, lines 39-62) while easily doing the work at the tooth.

(10) Response to Argument

It is noted that the following rejections were not challenged in Appellant's Arguments, and are urged to be summarily affirmed:

- Whether Claims 1, 33, and 37 are unpatentable on the ground of nonstatutory obviousness-type double patenting over Claim 10 of U.S. Patent No. 6,254,389 B1.
- Whether Claims 1, 33, and 37 are unpatentable under 35 U.S.C. 102(e) as being clearly anticipated by Stangel et al. (US Patent No. 6,605,651 B1). The indication of the patent number in the Office action mailed 31 October 2007 was clearly a typographical error and was understood on page 14 of Appellant's Brief.

Appellants Arguments in Appellant's Argument section VII A are not addressed due to their direction to a withdrawn rejection (Whether Claims 1, 33, and 37 are unpatentable on the ground of nonstatutory obviousness-type double patenting over Claim 5 of U.S. Patent No. 6,737,619 B2 in view of Gonser (US Patent No. 3,868,513).

In Appellant's Argument section VII B, Appellant argues that a prima facie case of obviousness has not been made because microwave curing often occurs at higher than 150 °C in some polymers as acknowledged in Applicant's Specification. Thus, use of such heat in an intra-oral environment would not be reasonable to one of ordinary skill in the art at the time the invention was made. In response, first, the Examiner notes that Podszun's composition used to fill teeth is polymerizable at only 50 °C (see col. 1, lines 8-20 and col. 3, 52-56), which obviates complications or requirements of curing at 150 °C. Second, intra-orally delivering microwave energy and its corresponding heat with varying instruments is expressly taught by Stevens (col. 1, lines 48-62). Third, proper precautions for pain such as anesthetizing, as acknowledged by Appellant (see Appellant's Brief, paragraph bridging pages 12 and 13), are well known to be used in dental procedures. Finally, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., curing at 150 °C) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In Appellant's Argument section VII B, Appellant argues that one of ordinary skill in the art at the time the invention would not have expected Stevens's intra-oral disinfectant device's microwave energy to cure dental polymer materials. In response, the Examiner relies on Nakazato's teaching of applying microwave energy to cure dental polymers, specifically methacrylate material (see Nakazato, Abstract; col. 2, lines 39-45) as used by Podszun (see Podszun, col. 1, lines 8-20). Moreover, the intra-oral use of a microwave device would allow polymerization within a short time without causing porosity, limited deformation, and improved size accuracy (see Nakazato, col. 2, lines 39-62) while easily doing the work at the tooth.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Patrick Butler/

Examiner, Art Unit 1791

Conferees:

/Jennifer Michener/

QAS, TC1700

/Christina Johnson/

Supervisory Patent Examiner, Art Unit 1791